

This listing of claims replaces all prior versions, and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) A memory having stored therein a structure readable by a host adapter comprising:

a scatter/gather list comprising a plurality of scatter/gather list sections wherein each of said sections is stored in a different set of contiguous memory locations in said memory and said set of contiguous memory locations can be of any size, wherein at least one scatter/gather list section in said plurality of scatter/gather list sections comprises:

a plurality of data elements, wherein each data element comprises:

an end-of-list flag; and

an end-of-section flag,

wherein said plurality of data elements includes (j) data elements where j is an integer;

said end of list flag has a first state in a first (j-1) of said data elements;

said end of list flag in data element j has said first state if said data element j is not a last data element in said scatter/gather list, and has a second state different from said first state if said data element j is said last data element in said scatter/gather list; and

each data element in said plurality of data elements includes:

a segment address;

wherein said segment address is associated with a location in a first memory having information stored therein and said information is to be transferred from said first memory to a second memory.

2. (Currently Amended) The scatter/gather list of Claim 1 wherein said end-of-list flag has ~~a same value~~ said first state in said each data element.

3. (Currently Amended) The scatter/gather list of Claim 1 wherein said end-of-section flag has a same ~~value~~ state in said each data element.

4. (Currently Amended) The scatter/gather list of Claim 1 wherein said end-of-section flag has a first ~~value~~ state in a last data element in said plurality of data elements, and a second ~~value~~ state in all other data elements in said plurality of data elements.

5. (Currently Amended) The scatter/gather list of Claim 4 wherein said end-of-list flag has ~~a same value~~ said first state in said each data element.

6. (Currently Amended) The scatter/gather list of Claim 4 wherein said end-of-list flag has ~~a same value~~ said second state in said last data element in said plurality of data elements, and ~~a second value~~ said first state in all other data elements in said plurality of data elements.

7. (Original) The scatter/gather list of Claim 1 wherein said end-of-list flag has a size of one bit.

8. (Original) The scatter/gather list of Claim 1 wherein said end-of-section flag has a size of one bit.

9. (Currently Amended) The scatter/gather list of Claim 1 wherein said each data element further comprises:
an address field including said segment address.

10. (Original) The scatter/gather list of Claim 9 wherein said end-of-list flag, and said end-of-section flag are included within said address field.

11. (Original) The scatter/gather list of Claim 1 wherein said each data element further comprises:
a length field.

12. (Original) The scatter/gather list of Claim 9 wherein said each data element further comprises:
a length field.

13. (Original) The scatter/gather list of Claim 1 said at least one scatter/gather list section further comprises:
a link element comprising:
an end-of-list flag; and
an end-of-section flag.

14. (Currently Amended) A memory having stored therein a structure, readable by a host adapter, comprising:
a scatter gather list comprising a plurality of scatter/gather list sections wherein each of said sections is stored in a different set of contiguous memory locations and said set of contiguous memory locations can be of any size, and further stored in a memory wherein at least one scatter/gather list section

in said plurality of scatter/gather list sections comprises:

a plurality of data elements, wherein each data element comprises:

an end-of-list flag wherein said end-of-list flag has a first state;

an end-of-section flag;

an address field having a data segment address; and

a length field having a data segment length wherein said data segment address and said data segment length are used in determining an area in a first memory having information stored therein and said information is to be transferred from said first memory to a second memory; and

a link element comprising:

an end-of-list flag;

an end-of-section flag; and

an address field having a next list section address to another scatter/gather list section in said plurality of scatter/gather list sections.

15. (Currently Amended) A memory having stored therein a structure readable by a host adapter comprising:

a scatter/gather list comprising a plurality of scatter/gather list sections wherein each of said sections is stored in a different set of contiguous memory locations and said set of contiguous memory locations can be of any size, and further stored in a ~~memory~~ wherein at least one scatter/gather list section in said plurality of scatter/gather list sections comprises:

a plurality of data elements, wherein each data element consists of:

an address field comprising:

a data segment address;
an end-of-list flag; and
an end-of-section flag

wherein said plurality of data elements includes j data elements where j is an integer;

said end of list flag has a first state in a first (j-1) of said data elements;

said end of list flag in data element j has said first state if said data element j is not a last data element in said scatter/gather list, and has a second state different from said first state if said data element j is said last data element in said scatter/gather list;
and

said data segment address is associated with a location in a first memory having information stored therein and said information is to be transferred from said first memory to a second memory; and

a link element consisting of:

an address field comprising:

a next list section address;
an end-of-list flag; and
an end-of-section flag.

16. (Currently Amended) A computer system structure comprising:

a memory comprising a scatter/gather list, readable by a host adapter, comprising a plurality of scatter/gather list sections wherein each of said sections is stored in a different set of contiguous memory locations and said set of contiguous memory locations can be of any size, and further wherein at least one scatter/gather list section in said plurality of scatter/gather list sections comprises:

a plurality of data elements wherein each data element comprises:

an end-of-list flag; and

an end-of-section flag,

wherein said plurality of data elements includes (j) data elements where j is an integer;

said end of list flag has a first state in a first (j-1) of said data elements;

said end of list flag in data element j has said first state if said data element j is not a last data element in said scatter/gather list, and has a second state different from said first state if said data element j is said last data element in said scatter/gather list; and

each data element in said plurality of data elements includes:

a segment address;

wherein said segment address is associated with a location in a first memory having information stored therein and said information

is to be transferred from said first memory to a second memory.

17. (Currently Amended) The computer system structure of Claim 16 wherein said at least one scatter/gather list section further comprises:

a link element comprising:
an end-of-list flag; and
an end-of-section flag.

18. (Currently Amended) A computer system structure comprising:

a memory comprising a scatter/gather list, readable by a host adapter, comprising a plurality of scatter/gather list sections wherein each of said sections is stored in a different set of contiguous memory locations and said set of contiguous memory locations can be of any size, and further wherein at least one scatter/gather list section in said plurality of scatter/gather list sections comprises:

a plurality of data elements, wherein each data element comprises:

an end-of-list flag;
an end-of-section flag;
an address field having a data segment address; and

a length field having a data segment length wherein said data segment address and said data segment length are used in determining an area in a first memory having information stored therein and said information is to be transferred from said first memory to a second memory by said host adapter; and

a link element comprising:
an end-of-list flag;
an end-of-section flag; and
an address field having a next list
section address.

19. (Currently Amended) A method comprising:
storing a scatter/gather list, readable by a host
adapter, as a plurality of sections in a memory, wherein
each of said sections is stored in a different set of
contiguous memory locations and said set of contiguous
memory locations can be of any size, and further wherein
each section includes a plurality of elements wherein
each element comprises:

an address wherein said address is associated
with a location in a first memory having
information stored therein and said information is
to be transferred from said first memory to a
second memory;

an end-of-list flag; and
an end-of-section flag;
setting an end-of-list flag in a last element of a
last section in said plurality of sections; and
setting an end-of-section flag in at least one of
said plurality of sections other than said last section.

20. (Previously Presented) The method of Claim 19
wherein said setting an end-of-section flag is performed on a
last element in said at least one of said plurality of
sections other than said last section.

21. (Original) The method of Claim 19 wherein said
setting an end-of-section flag is performed on a link element

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in said at least one of said plurality of sections other than
said last section.